

Physicians at Good Samaritan Hospital in Kearney have begun to implant a new kind of pacemaker that is approved for use in a Magnetic Resonance Imaging (MRI) environment. The Revo MRI™ SureScan® pacing system is the first MR-Conditional pacing system designed, tested and FDA approved for use in an MRI.

Until now, MRI procedures for patients with implanted pacemakers were not recommended because these patients might face serious complications, such as interference with pacemaker operation, damage to system components, lead or pacemaker dislodgement or change in pacing capture threshold.

Developed by Medtronic, the Revo MRI SureScan pacing system is the first pacing system of its kind in the U.S. The system was designed to address safety concerns around MRI procedures for patients who have implanted pacemakers.

MRI scanners may cause traditional pacemakers to misinterpret MRI-generated electrical noise and withhold pacing therapy or deliver unnecessary pacing therapy. The Revo MRI pacing system, when programmed into SureScan mode prior to an MRI scan, is designed to be used safely in the MRI environment.

The number of patients with pacemakers is growing at the same time that the use of MRI is increasing. About 40 million MRI scans are performed annually in the United States and Good Samaritan Hospital performs more than 3,000 MRI scans each year. MRI is often preferred by physicians because it provides a level of detail and clarity not offered by other soft tissue imaging modalities.

An estimated 50 to 75 percent of cardiac device patients will be indicated for an MRI over the lifetime of their devices. Furthermore, more than 200,000 patients annually in the U.S. have to forego an MRI scan because they have a pacemaker. The new pacing system offered at Good Samaritan Hospital can help address this important unmet patient need.

“Medical imaging and electronic implantable devices such as pacemakers are important technological advances, particularly for older people,” said Todd Stover, director of Perfusion Service and co-director of Cardiovascular Services at Good Samaritan. “Good Samaritan Hospital is proud to be among the first hospitals to provide safer access to MRI for our patients. We encourage our patients to talk to their doctor about which pacing system is right for them.”